App Serial # 09/977,053 Exhibit D Friddle et al. LEX-0128-USA Novel Human Membrane Protein and Polynucleotides Encoding the Same

FASTA searches a protein or DNA sequence data bank version 3.3t05 March 30, 2000 Please cite: W.R. Pearson & D.J. Lipman PNAS (1988) 85:2444-2448 /tmp/fastaCAAyBaGwh: 3571 aa >qi | 40198414 | qb | AAR79125.1 | Sequence 2 from patent US 6656707 vs /tmp/fastaDAAzBaGwh library searching /tmp/fastaDAAzBaGwh library 3571 residues in 1 sequences FASTA (3.34 January 2000) function [optimized, BL50 matrix (15:-5)] ktup: 2 join: 47, opt: 35, gap-pen: -12/ -2, width: 16 Scan time: 0.117 The best scores are: opt SEQ ID NO:4 (3571) 25785 >>SEQ ID NO:4 (3571 aa) initn: 25785 init1: 25785 opt: 25785 Smith-Waterman score: 25785; 99.860% identity in 3571 aa overlap (1-3571:1-3571) 10 20 30 40 50 gi|401 MWPRLAFCCWGLALVSGWATFQQMSPSRNFSFRLFPETAPGAPGSIPAPPAPGDEAAGSR MWPRLAFCCWGLALVSGWATFQQMSPSRNFSFRLFPETAPGAPGSIPAPPAPGDEAAGSR SEO 10 20 30 40 50 60 70 80 90 100 110 gi | 401 VERLGQAFRRRVRLLRELSERLELVFLVDDSSSVGEVNFRSELMFVRKLLSDFPVVPTAT VERLGQAFRRRVRLLRELSERLELVFLVDDSSSVGEVNFRSELMFVRKLLSDFPVVPTAT SEQ 70 80 90 100 110 120 150 160 130 140 170 180 gi | 401 RVAIVTFSSKNYVVPRVDYISTRRARQHKCALLLQEIPAISYRGGGTYTKGAFQQAAQIL SEO RVAIVTFSSKNYVVPRVDYISTRRARQHKCALLLQEIPAISYRGGGTYTKGAFQQAAQIL 130 140 150 160 170 180 190 200 210 220 230 240 qi | 401 LHARENSTKVVFLITDGYSNGGDPRPIAASLRDSGVEIFTFGIWQGNIRELNDMASTPKE SEO LHARENSTKVVFLITDGYSNGGDPRPIAASLRDSGVEIFTFGIWOGNIRELNDMASTPKE 190 200 210 220 230 240 250 270 260 280 290 300 gi | 401 EHCYLLHSFEEFEALARRALHEDLPSGSFIQDDMVHCSYLCDEGKDCCDRMGSCKCGTHT SEQ EHCYLLHSFEEFEALARRALHEDLPSGSFIQDDMVHCSYLCDEGKDCCDRMGSCKCGTHT

250

260

270

280

290

300

gi 401	310 GHFECICEKGYYGKGI					
SEQ	GHFECICEKGYYGKGI	LQYECTACPSG	TYKPEGSPGG	ISSCIPCPDE	NHTSPPGSTSI	PEDC
	310	320	330	340	350	360
gi 401	370 VCREGYRASGQTCELV	380 /HCPALKPPEN	390 GYFIQNTCNN	400 HFNAACGVRC	410 HPGFDLVGSSI	420 IILC
	:::::::::::::::::::::::::::::::::::::::					
SEQ	VCREGYRASGQTCEL\				HPGFDLVGSS:	420
	370	380	390	400	410	420
gi 401	430 LPNGLWSGSESYCRVF	440 RTCPHLRQPKH	450 IGHISCSTREM	460 LYKTTCLVAC	470 DEGYRLEGSDI	480 KLTC
5 1	:::::::::::::::::::::::::::::::::::::::					
SEQ	LPNGLWSGSESYCRVF					
	430	440	450	460	470	480
	490	500	510	520	530	540
g1 401	QGNSQWDGPEPRCVEF					
SEQ	QGNSQWDGPEPRCVER					
	490	500	510	520	530	540
ai 401	550 MLRCTTSGKWNVGVQA	560	570 TNCDKDTEAK	580 TLEOODGANU	590 TWO T DTD KDNG	600
91 401	::::::::::::::					
SEQ	MLRCTTSGKWNVGVQA					
	550	560	570	580	590	600
	610	620	630	640	650	660
gi 401	VSVHVHPAFTPPYLFI					
J 1						
SEQ	VSVHVHPAFTPPYLFI					·=
	610	620	630	640	650	660
	670	680	690	700	710	72.0
gi 401	VSEKVHAASWDEPQFS	SDNSGAELVIT	RSHTQGDLFP	QGETIVQYTA	TDPSGNNRTCI	OIHI
SEQ	VSEKVHAASWDEPQFS 670	SDNSGAELVIT 680	RSHTQGDLFP 690	QGETIVQYTA 700	TDPSGNNRTCI 710	720
	070	000	090	700	710	720
	730	740	750	760	770	780
gi 401	VIKGSPCEIPFTPVNC					
SEQ	VIKGSPCEIPFTPVNC					
Qac.	730	740	750	760	770	780
		-			-	
	790	800	810	820	830	840
gi 401	TTEWPDCAKKRFANHO					
SEQ	TTEWPDCAKKRFANHO					
~	790	800	810	820	830	840

	850	860	870	880	890	900
gi 401	DCRLEENLTKKYC					
SEQ	DCRLEENLTKKYC					
	850	860	870	880	890	900
	010	222		0.4.0	050	0.50
ai 401	910 SRIKRSAPLSDYK	920 TKLIFNITASV	930 /PLPDERNDT	940 LEWENOORLL	950 OTLETITNKI	960 מאוא.ודדא.
5-1-0-	::::::::::::::					
SEQ	SRIKRSAPLSDYK					
	910	920	930	940	950	960
	970	980	990	1000	1010	1020
ji 401	PMYSFQLASEILI	ADSNSLETKK		LRGRMCVNCP	LGTYYNLEHF	TCESCRI
ПО	DAYGEOL AGETT T					
SEQ	PMYSFQLASEILI 970	.ADSNSLETKKA 980	990	LRGRMCVNCP	LGTYYNLEHF 1010	1020
	•			•		_020
	1030	1040	1050	1060	1070	1080
1 401	GSYQDEEGQLECK					
SEQ	GSYQDEEGQLECK					
	1030	1040	1050	1060	1070	1080
	1090	1100	1110	1120	1130	1140
i 401	FGSRSCLSCPENT					1140 NAGKAFC
'	:::::::::::::::::::::::::::::::::::::::					
EQ	FGSRSCLSCPENT				· -	
	1090	1100	1110	1120	1130	1140
	1150	1160	1170	1180	1190	1200
i 401	LACPFYGTTPFAG					
EQ [*]	::::::::::::::::::::::::::::::::::::::					
	1150	1160	1170	1180	1190	1200
i 4 0 1	1210 PCHNSGTCQQLGR	1220	1230	1240	1250	1260
+1401	:::::::::::					
EQ	PCHNSGTCQQLGR	GYVCLCPLGYT	GLKCETDIDE		GVCKDLVGEF	ICECPSG
	1210	1220	1230	1240	1250	1260
	1270	1280	1290	1300	1310	1320
i 401	YTGQRCEENINEC					
	::::::::::::::::::::::::::::::::::::::					
EQ	YTGQRCEENINEC 1270	1280	VDGVAGYRC'I 1290	TCVKGFVGLHO 1300	CETEVNECQS 1310	NPCLNNA 1320
	12,0	1200	1270	1300	1310	1520
	1330	1340	1350	1360	1370	1380
1 401	VCEDQVGGFLCKC					
EQ						
пŽ	VCEDQVGGFLCKC				ANSFRCLCAA	GFTGSHC

	1390	1400	1410	1420	1430	1440
gi 401	ELNINECQSNPCRN					
	:::::::::::::::::::::::::::::::::::::::					
SEQ	ELNINECQSNPCRN					
	1390	1400	1410	1420	1430	1440
	1450	1460	1470	1400	7.400	1500
~il401	1450 LDGMLPSLHALTCT	1460	1470	1480	1490	1500
91 401	::::::::::::					
SEQ	LDGMLPSLHALTCT					
Ong	1450	1460	1470	1480	1490	1500
	1510	1520	1530	1540	1550	1560
gi 401	NCPSVNDGRWHHIA	ITWTSANGIW	CVYIDGKLSDO	GAGLSVGLP	PGGGALVLG	DEQDKK
	:::::::::::::::::::::::::::::::::::::::					
SEQ	NCPSVNDGRWHHIA	ITWTSANGIW		GAGLSVGLPI	PGGGALVLGÇ	QEQDKK
	1510	1520	1530	1540	1550	1560
	1570	1580	1590	1600	1610	1620
g1 401	GEGFSPAESFVGS1:					
SEQ	CECEEDARCEVOCT					
SEQ	GEGFSPAESFVGSIS	1580	1590	1600	1610	1620
	1370	1300	1390	1600	1010	1620
	1630	1640	1650	1660	1670	1680
gi 401						
J ,						
			· · · · · · · · · · ·	· · · · · · · · · · ·		
SEQ	IDSKSIFCSDCPRLO					
SEQ						
SEQ	IDSKSIFCSDCPRLO	GGSVPHLRTAS 1640	SEDLKPGSKVN	ILFCDPGFQLV	GNPVQYCLNQ	QGQWTQ
	IDSKSIFCSDCPRLO	GGSVPHLRTAS 1640 1700	SEDLKPGSKVN 1650 1710	ILFCDPGFQLV 1660 1720	GNPVQYCLNÇ 1670 1730	QGQWTQ 1680 1740
	1630 1690 PLPHCERISCGVPPI	GGSVPHLRTAS 1640 1700 PLENGFHSADI	SEDLKPGSKVN 1650 1710 PFYAGSTVTYÇ	ILFCDPGFQLV 1660 1720 CNNGYYLLGE	GNPVQYCLNÇ 1670 1730 SRMFCTDNGS	QGQWTQ 1680 1740 SWNGVS
gi 401	1630 1690 PLPHCERISCGVPPI	GGSVPHLRTAS 1640 1700 PLENGFHSADI	SEDLKPGSKVN 1650 1710 DFYAGSTVTYÇ	JLFCDPGFQLV 1660 1720 CONNGYYLLGI	GNPVQYCLNÇ 1670 1730 OSRMFCTDNGS	QGQWTQ 1680 1740 SWNGVS
	1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI ::::::::	SEDLKPGSKVN 1650 1710 PFYAGSTVTYÇ :::::::	JLFCDPGFQLV 1660 1720 CNNGYYLLGE :::::::	GNPVQYCLNQ 1670 1730 SRMFCTDNGS :::::::	QGQWTQ 1680 1740 SWNGVS :::::
gi 401	1630 1690 PLPHCERISCGVPPI	GGSVPHLRTAS 1640 1700 PLENGFHSADI	SEDLKPGSKVN 1650 1710 DFYAGSTVTYÇ	JLFCDPGFQLV 1660 1720 CONNGYYLLGI	GNPVQYCLNÇ 1670 1730 OSRMFCTDNGS	QGQWTQ 1680 1740 SWNGVS
gi 401	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI ::::::::: PLENGFHSADI 1700	SEDLKPGSKVN 1650 1710 PFYAGSTVTYC :::::::: PFYAGSTVTYC 1710	JLFCDPGFQLV 1660 1720 CNNGYYLLGE :::::::: CNNGYYLLGE 1720	GNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730	QGQWTQ 1680 1740 EWNGVS ::::: EWNGVS 1740
gi 401 SEQ	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI ::::::::: PLENGFHSADI 1700 1760	SEDLKPGSKVN 1650 1710 PFYAGSTVTYC :::::::: PFYAGSTVTYC 1710 1770	JLFCDPGFQLV 1660 1720 CNNGYYLLGE :::::::: CNNGYYLLGE 1720 1780	GNPVQYCLNQ 1670 1730 SSRMFCTDNGS :::::::: SSRMFCTDNGS 1730 1790	1740 SWNGVS ::::: SWNGVS 1740
gi 401 SEQ	1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI :::::::: PLENGFHSADI 1700 1760 CSEHASCLNVI	SEDLKPGSKVN 1650 1710 PFYAGSTVTYC :::::::: PFYAGSTVTYC 1710 1770 PGSYICSCVPE	JLFCDPGFQLV 1660 1720 CNNGYYLLGE :::::::: CNNGYYLLGE 1720 1780 PYTGDGKNCAE	GNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 EPIKCKAPGNE	QGQWTQ 1680 1740 EWNGVS ::::: EWNGVS 1740 1800 PENGHS
gi 401 SEQ	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI	SEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPE	JLFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 CPIKCKAPGNE	1680 1740 5WNGVS ::::: 5WNGVS 1740 1800 PENGHS
gi 401 SEQ gi 401	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI	SEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPE	JLFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 CPIKCKAPGNE	1680 1740 5WNGVS ::::: 5WNGVS 1740 1800 PENGHS
gi 401 SEQ gi 401	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI	BEDLKPGSKVN 1650 1710 DFYAGSTVTYC 1710 1770 DGSYICSCVPF ::::::::::::::::::::::::::::::::::::	JLFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE ::::::::	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS 1730 1790 CPIKCKAPGNE CPIKCKAPGNE	1740 1740 SWNGVS 1740 1800 PENGHS
gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820	BEDLKPGSKVN 1650 1710 DFYAGSTVTYC 1710 1770 DGSYICSCVPF 1770 1830	JLFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE :::::::: PYTGDGKNCAE 1780 1840	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 CPIKCKAPGNE ::::::::: CPIKCKAPGNE 1790 1850	1740 1740 5WNGVS ::::: 5WNGVS 1740 1800 PENGHS ::::: PENGHS 1800
gi 401 SEQ gi 401 SEQ	1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	EGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVI	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 OGSYICSCVPF 1770 1830 CKITCLESGEW	JLFCDPGFQLV 1660 1720 CNNGYYLLGE 1720 1780 CYTGDGKNCAE 1780 1780 1780 1780 1780 MALIPYCKAV	GNPVQYCLNQ 1670 1730 SRMFCTDNGS ::::::::: SRMFCTDNGS 1730 1790 SPIKCKAPGNE ::::::::: EPIKCKAPGNE 1790 1850 SCGKPAIPEN	1740 1740 SWNGVS ::::: SWNGVS 1740 1800 PENGHS ::::: PENGHS 1800 1860 IGCIEE
gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	EGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVT	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPF 1770 1830 PKITCLESGEW :::::::::	JLFCDPGFQLV 1660 1720 PCNNGYYLLGE 1720 1780 PYTGDGKNCAE 1780 1780 1840 JNHLIPYCKAV	GNPVQYCLNQ 1670 1730 SRMFCTDNGS ::::::::: SRMFCTDNGS 1730 1790 SPIKCKAPGNE ::::::::: CPIKCKAPGNE 1790 1850 VSCGKPAIPEN ::::::::	1740 1740 SWNGVS 1740 1800 PENGHS 1800 1860 1860 IGCIEE
gi 401 SEQ gi 401 SEQ	1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVT	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPF 1770 1830 PKITCLESGEW CKITCLESGEW CKITCLESGEW	JUNE COPRESSED IN THE PYCKAV	GNPVQYCLNQ 1670 1730 SRMFCTDNGS ::::::::: SRMFCTDNGS 1730 1790 PIKCKAPGNE ::::::::: CPIKCKAPGNE 1790 1850 VSCGKPAIPEN ::::::::	1740 SWNGVS 1740 SWNGVS 1740 1800 PENGHS 1800 1860 UGCIEE
gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	EGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVT	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPF 1770 1830 PKITCLESGEW :::::::::	JLFCDPGFQLV 1660 1720 PCNNGYYLLGE 1720 1780 PYTGDGKNCAE 1780 1780 1840 JNHLIPYCKAV	GNPVQYCLNQ 1670 1730 SRMFCTDNGS ::::::::: SRMFCTDNGS 1730 1790 SPIKCKAPGNE ::::::::: CPIKCKAPGNE 1790 1850 VSCGKPAIPEN ::::::::	1740 1740 SWNGVS 1740 1800 PENGHS 1800 1860 1860 IGCIEE
gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	EGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVI 1820 CQEGYQLMGVI 1820	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPF 1770 1830 CKITCLESGEW 1830	JUFCDPGFQLV 1660 1720 CONNGYYLLGE 1720 1780 PYTGDGKNCAE 1780 1840 INHLIPYCKAV 1840	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 EPIKCKAPGNE ::::::::: EPIKCKAPGNE 1790 1850 TSCGKPAIPEN :::::::::	1740 1740 5WNGVS 1740 1800 PENGHS 1800 1860 1860 IGCIEE 1860
gi 401 SEQ gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	EGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVT 1820 1880	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPF 1770 1830 TKITCLESGEW 1830 1890	JLFCDPGFQLV 1660 1720 CNNGYYLLGE 1720 1780 PYTGDGKNCAE 1780 1840 INHLIPYCKAV 1840 1900	GNPVQYCLNQ 1670 1730 SRMFCTDNGS ::::::::: SRMFCTDNGS 1730 1790 PPIKCKAPGNE ::::::::: PPIKCKAPGNE 1790 1850 SCGKPAIPEN 1850 1910	1740 SWNGVS 1740 SWNGVS 1740 1800 PENGHS 1800 1860 UGCIEE 1860 1920
gi 401 SEQ gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	GGSVPHLRTAS 1640 1700 PLENGFHSADI 1700 1760 CSEHASCLNVI 1760 1820 CQEGYQLMGVI 1820 CQEGYQLMGVI 1820 1880 GGYTLAGDKES	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPN 1770 1830 PKITCLESGEN 1830 PKITCLESGEN 1830 1890 SCLANSSWSH	ILFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE :::::::: PYTGDGKNCAE 1780 1840 INHLIPYCKAV 1840 1900 ISPPVCEPVKC	TGNPVQYCLNQ 1670 1730 DSRMFCTDNGS ::::::::: DSRMFCTDNGS 1730 1790 CPIKCKAPGNE ::::::::: CPIKCKAPGNE 1790 1850 TSCGKPAIPEN 1850 1910 CSSPENINNGK	1740 1740 SWNGVS 1740 1800 PENGHS 1:::: PENGHS 1800 1860 IGCIEE 1860 1920 CYILSG
gi 401 SEQ gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	### 1640 ### 1700 PLENGFHSADI ### 1700 ### 1700 ### 1760 ### 25EHASCLNVI ### 1760 ### 1820 ### 20EGYQLMGVI ### 1820 ### 20EGYQLMGVI ### 1820 ### 1880 ### 18	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPE 1770 1830 CKITCLESGEW 1830 1890 SCLANSSWSE :::::::::	ILFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE :::::::: PYTGDGKNCAE 1780 1840 INHLIPYCKAV 1840 1900 ISPPVCEPVKC	7GNPVQYCLNQ 1670 1730 2SRMFCTDNGS ::::::::: 2SRMFCTDNGS 1730 1790 2PIKCKAPGNE ::::::::: 2PIKCKAPGNE 1790 1850 7SCGKPAIPEN :::::::::: 7SCGKPAIPEN 1850 1910 2SSPENINNGK	1740 1740 SWNGVS 1740 1800 PENGHS 1840 1860 1860 IGCIEE 1860 1920 CYILSG ::::
gi 401 SEQ gi 401 SEQ gi 401 SEQ	IDSKSIFCSDCPRLO 1630 1690 PLPHCERISCGVPPI :::::::::::::::::::::::::::::::::::	### 1640 ### 1700 PLENGFHSADI ### 1700 ### 1700 ### 1760 ### 25EHASCLNVI ### 1760 ### 1820 ### 20EGYQLMGVI ### 1820 ### 20EGYQLMGVI ### 1820 ### 1880 ### 18	BEDLKPGSKVN 1650 1710 PFYAGSTVTYC 1710 1770 PGSYICSCVPE 1770 1830 CKITCLESGEW 1830 1890 SCLANSSWSE :::::::::	ILFCDPGFQLV 1660 1720 CONNGYYLLGE :::::::: CONNGYYLLGE 1720 1780 PYTGDGKNCAE :::::::: PYTGDGKNCAE 1780 1840 INHLIPYCKAV 1840 1900 ISPPVCEPVKC	7GNPVQYCLNQ 1670 1730 2SRMFCTDNGS ::::::::: 2SRMFCTDNGS 1730 1790 2PIKCKAPGNE ::::::::: 2PIKCKAPGNE 1790 1850 7SCGKPAIPEN :::::::::: 7SCGKPAIPEN 1850 1910 2SSPENINNGK	1740 1740 SWNGVS 1740 1800 PENGHS 1840 1860 1860 IGCIEE 1860 1920 CYILSG ::::

gi 401	1930 LTYLSTASYSCDTGY					
SEQ	LTYLSTASYSCDTGY					
	1990	2000	2010	2020	2030	2040
gi 401	FRNTVTYTCKEGYTL	:::::::::	:::::::::	::::::::	::::::::	:::::
SEQ	FRNTVTYTCKEGYTL	AGLDTIECLA 2000	DGKWSRSDQQ 2010	CLAVSCDEPP 2020	IVDHASPETA 2030	HRLFG 2040
gi 401	2050 DIAFYYCSDGYSLADI					
SEQ	DIAFYYCSDGYSLADI	NSQLLCNAQG:	KWVPPEGQDM	PRCIAHFCEK	PPSVSYSILE	SVSKA
	2050	2060	2070	2080	2090	2100
gi 401	2110 KFAAGSVVSFKCMEG					
SEQ	KFAAGSVVSFKCMEG	FVLNTSAKIE	CMRGGQWNPS	PMSIQCIPVR	CGEPPSIMNG	YASGS
	2110	2120	2130	2140	2150	2160
gi 401	2170 NYSFGAMVAYSCNKG					
SEQ	NYSFGAMVAYSCNKG					
gi 401	2230 RIFESEVRYQCNPGYI	2240 KSVGSPVFVC	2250 QANRHWHSES	2260 PLMCVPLDCG	2270 KPPPIQNGFM	2280 KGENF
SEQ	::::::::::::::::::::::::::::::::::::::		::::::::			:::::
_	2230	2240	2250	2260	2270	2280
gi 401	2290 EVGSKVQFFCNEGYE					
SEQ	EVGSKVQFFCNEGYE	LVGDSSWTCQ	KSGKWNKKSN	PKCMPAKCPE	PPLLENQLVL	KELTT
	2290	2300	2310	2320	2330	2340
gi 401	2350 EVGVVTFSCKEGHVL	2360 QGPSVLKCLP:	2370 SQQWNDSFPV	2380 CKIVLCTPPP	2390 LISFGVPIPS	2400 SALHF
SEQ	EVGVVTFSCKEGHVLO					
gi 401	2410 GSTVKYSCVGGFFLRO	2420 SNSTTLCOPDO	2430 GTWSSPLPEC	2440 VPVECPOPEE	2450 IPNGIIDVOG	2460 LAYLS
SEQ	GSTVKYSCVGGFFLRO	::::::: GNSTTLCQPD	:::::::: GTWSSPLPEC	······································	::::::::: IPNGIIDVQG	::::
	2410	2420	2430	2440	2450	2460

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gi 401	2470 TALYTCKPGFELVGN					
SEQ	::::::::::::::::::::::::::::::::::::::					
	2470	2480	2490	2500	2510	2520
gi 401	2530 TYSCNRGFRLEGPSA	2540 LTCLETGDWD	2550 VDAPSCNAIH	2560 CDSPQPIENG	2570 FVEGADYSYG	2580 AIIIY
SEQ	::::::::::::::::::::::::::::::::::::::					
	2530	2540	2550	2560	2570	2580
gi 401	2590 SCFPGFQVAGHAMQTO	2600 CEESGWSSSI	2610 PTCMPIDCGL	2620 PPHIDFGDCT	2630 KLKDDQGYFE(2640 QEDDM
SEQ	::::::::::::::::::::::::::::::::::::::		:::::::::	:::::::::	:::::::::::	::::
SBQ	2590	2600	2610	2620	2630	2640
gi 401	2650 MEVPYVTPHPPYHLGA	2660 AVAKTWENTK	2670 ESPATHSSNF	2680 LYGTMVSYTC	2690 NPGYELLGNPV	2700 /LTC0
SEQ	::::::::::::::::::::::::::::::::::::::	::::::::	::::::::	:::::::::		:::::
SEQ	2650	2660	2670	2680	2690	2700
ai 401	2710 EDGTWNGSAPSCISII	2720 ECDLETAPEN	2730 GELRETETSM	2740 354VOVSCKP	2750	2760 CLEN
- •	:::::::::::::::::::::::::::::::::::::::	:::::::::	:::::::::	::::::::		:::::
SEQ	EDGTWNGSAPSCISII 2710	2720	2730	2740	GHILAGSDLRI 2750	2760
gi 401	2770 RKWSGASPRCEAISCI	2780 KKPNPVMNGS	2790 IKGSNYTYLS'	2800 TLYYECDPGY	2810 VLNGTERRTCO	2820 DDKN
SEQ	RKWSGASPRCEAISC	: : : : : : : : :	::::::::	::::::::::	::::::::::	::::
SEQ	2770	2780	2790	2800	Z810	2820
gi 401	2830 WDEDEPICIPVDCSSI	2840 PPVSANGOVRO	2850 GDEYTFOKEI	2860 EYTCNEGFLLI	2870 EGARSRVCLAN	2880 IGSWS
SEQ				::::::::	: : : : : : : : : :	::::
SEQ	WDEDEPICIPVDCSSI 2830	2840	2850	2860	2870	2880
ai 401	2890 GATPDCVPVRCATPPO	2900 NANGVTEGLI	2910 OYGEMKEVTE	2920 HCHEGYTI.HG	2930	2940
	:::::::::::::::::::::::::::::::::::::::		::::::::	::::::::	:::::::::::	::::
SEQ	GATPDCVPVRCATPP(2890	2900	2910	2920	APKLTCQSDGN 2930	1WDAE 2940
gi 401	2950 IPLCKPVNCGPPEDLA	2960 AHGFPNGFSF	2970 IHGGHIOYOCI	2980 FPGYKLHGNS:	2990 SRRCLSNGSWS	3000 GGSSP
SEQ	:::::::::::::::::::::::::::::::::::::::		::::::::	::::::::	: : : : : : : : : :	::::
BEQ	IPLCKPVNCGPPEDLA 2950	2960	2970	2980	2990	3000

gi 401	3010 SCLPCRCSTPVIEY	3020 GTVNGTDFD	3030 CGKAARIQCF	3040 KGFKLLGLSE	3050 SITCEADGQWS	3060 SGFPHCE
SEQ	SCLPCRCSTPVIEY					
	3070	3080	3090	3100	3110	3120
gi 401	HTSCGSLPMIPNAF					
SEQ	HTSCGSLPMIPNAF 3070	ISETSSWKE 3080	NVITYSCRSG 3090	YVIQGSSDLI 3100	CTEKGVWSQP 3110	YPVCEPL 3120
gi 401	3130 SCGSPPSVANAVAT	3140 GEAHTYESE	3150 VKLRCLEGYT	3160 MDTDTDTFTC	3170 CQKDGRWFPER	3180 ISCSPKK
SEQ	::::::::::::::::::::::::::::::::::::::					
	3130	3140	3150	3160	3170	3180
gi 401	3190 CPLPENITHILVHG					
SEQ	CPLPENITHILVHG	DDFSVNRQV	SVSCAEGYTF	EGVNISVCQL	DGTWEPPFSD	ESCSPVS
	3190	3200	3210	3220	3230	3240
gi 401	3250 CGKPESPEHGFVVG	3260 SKYTFESTI	3270 IYQCEPGYELI	3280 EGNRERVCQE	3290 NRQWSGGVAI	3300 CKETRCE
SEQ	::::::::::::::::::::::::::::::::::::::					
	3250	3260	3270	3280	3290	3300
gi 401	3310 TPLEFLNGKADIEN	3320 RTTGPNVVY	3330 SCNRGYSLEG	3340 PSEAHCTENG	3350 TWSHPVPLCK	3360 PNPCPVP
SEQ	TPLEFLNGKADIEN	:::::::	:::::::::	: : : : : : : : :	::::::::	::::::
~	3310	3320	3330	3340	3350	3360
gi 401	3370 FVIPENALLSEKEF					
SEQ	FVIPENALLSEKEF	YVDQNVSIK	CREGFLLQGH	GIITCNPDET	WTQTSAKCEK	ISCGPPA
	3370	3380	3390	3400	3410	3420
gi 401	3430 HVENAIARGVHYQY	3440 GDMITYSCY	3450 SGYMLEGFLR:	3460 SVCLENGTWT	3470 SPPICRAVCR	3480 FPCQNGG
SEQ	::::::::::::::::::::::::::::::::::::::					
gi 401	3490 ICQRPNACSCPEGW	3500 MCDLCEEDT	3510	3520	3530	3540
- '	::::::::::::::::::::::::::::::::::::::	::::::::	::::::::	:::::::::	::::::::	::::::
SEQ	T C O K P IN A C D C P E G W	いらたいしたたとし	しょひとしかいけんだい	_ VAPIUCUCP	PGWIGSKUHT	4 V C O S P C

Scan time: 0.117 Display time: 18.567

3571 residues in 1 query sequences 3571 residues in 1 library sequences Scomplib [version 3.3t05 March 30, 2000] start: Wed Mar 3 12:05:29 2004 done: Wed Mar 3 12:05:40 2004

Function used was FASTA